DOCUMENT RESUME

ED 339 928 CG 023 829

AUTHOR Lloyd, Deborah Trahern
TITLE Personal and Educational Needs of Community College Adult Students.
PUB DATE 25 Apr 90
NOTE 101p.; M.S. Thesis, Fort Hays State University.
PUB TYPE Dissertations/Theses - Masters Theses (042) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Adult Students; Career Development; College Students; *Community Colleges; *Educational Needs; Nontraditional Students; Student Characteristics; *Student Needs; Two Year Colleges

ABSTRACT

The influx of older students has resulted in special needs for the community college. This study investigated the personal and educational needs of adult students (N=198). The independent variables were age, gender, marital status, number of hours enrolled, income, race, and number of children in the home. The dependent variables fell into four categories: life skill development needs; career development needs; educational planning needs; and needs connected with association with others. Within these categories were needs relating to: improving math, reading, speaking, and study skills; managing time, stress, and money; acquiring skill in decision making, goal setting, and use of leisure time; exploring different career possibilities; learning about the working experience as it actually is; becoming informed about four-year college entrance and graduation requirements, different majors, sources of financial aid, and various college services; and learning to get along with advisors, instructors, younger students; learning how to cope with single parenting, divorce, marital stress, and job, family, and school conflicts; and learning how to deal with differing opinions and discrimination. Five composite null hypotheses were tested employing a three-way analysis of variance. The results of the study appeared to support these generalizations: married students have greater educational planning needs than single students; and students with income levels from $21,000 to $29,999 have greater needs in the area of association than students with incomes over $50,000. The following interactions also appeared to be supported: (1) between gender and marital status for career development; (2) between age and credit hours enrolled for career development; (3) between age and credit hours enrolled for educational planning; (4) between age and credit hours enrolled for association with others; (5) between age and credit hours for life skills development; (6) between income level and number of children at home for career development; (7) among race, income level and number of children at home for career development; and (8) income level and number of children at home for educational planning. (Author/LLL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED339928

PERSONAL AND EDUCATIONAL NEEDS OF COMMUNITY COLLEGE ADULT STUDENTS

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

Deborah Trahern Lloyd

B.A. University of Southern Colorado

BEST COPY AVAILABLE

CG023829

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Deborah Trahern Lloyd

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PERSONAL AND EDUCATIONAL NEEDS OF COMMUNITY COLLEGE ADULT STUDENTS

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

Deborah Trahern Lloyd

B.A. University of Southern Colorado

Date_____ Approved_____
Major Professor

Approved_____
Chairman, Graduate Council

Graduate Committee Approval

The graduate committee of Deborah Trahern Lloyd hereby approves her thesis as meeting partial fulfillment of the requirements for the Degree of Master of Science.

Approved_____
Chairman, Graduate Committee

Approved_____
Committee Member

Approved_____
Committee Member

Approved_____
Committee Member

Date:_____

Table of Contents

Page

List of Appendices v

List of Tables vi

List of Figures vii

Abstract ..... viii-ix

Introduction 1

Definition and Characteristics of the Adult Learner 1

Life Skill Development Need 4

Career Development 10

Educational Planning 12

Association with Others 15

Summary 17

Statement of the Problem 18

Importance of the Research 18

Composite Null Hypotheses 19

Definition of Variables 20

Independent Variables 20

Dependant Variable 21

Limitations of the Study 22

Methodology 23

Setting 23

Subjects 23

Instrument 25

Instrument Reliability 25

Instrument Validity 26

Design 26
Data Collection Procedures 28
Research Procedure 29
Data Analyses 30
Results 30
Discussion 73
Summary 73
Related Literature and Results 73
Life Skill Development 74
Career Development 74
Educational Planning 75
Association with Others 76
Generalizations 77
Recommendations 78
References 79

List of Appendices

Appendix A

Permissions to conduct research..... 82

Appendix B

Letter granting permission..... 84

Appendix C

Instruction sheet for instrument administrators..... 86

Appendix D

Introduction and directions to the students..... 88

List of Tables

Page

Table 1: A Comparison of Mean Inventoried Needs Scores According to Gender, Marital Status, and Age Employing a Three-Way Analysis of Variance 32

Table 2: A Comparison of Mean Inventoried Needs Scores According to Marital Status, Age and Number of Hours Enrolled Employing a Three-Way Analysis of Variance 39

Table 3: A Comparison of Mean Inventoried Needs Scores According to Age, Number of Credit Hours Enrolled and Gender Employing a Three-Way Analysis of Variance 49

Table 4: A Comparison of Mean Inventoried Needs Scores According to Credit Hours Enrolled, Gender, and Marital Status Employing a Three-Way Analysis of Variance 56

Table 5: A Comparison of Mean Inventoried Needs Scores According to Race, Income Level, and Number of Children at Home Employing a Three Way Analysis of Variance 61

List of Figures

Figure 1: Interaction Between Gender and Marital Status for the Dependent Variable Career Development....37

Figure 2: Interaction Between Age and Credit Hours Enrolled for the Dependent Variable Career Development....44

Figure 3: Interaction Between Age and Credit Hours Enrolled for the Dependent Variable Educational Planning....45

Figure 4: Interaction Between Age and Credit Hours Enrolled for the Dependent Variable Association with Others....47

Figure 5: Interaction Between Age and Credit Hours Enrolled for the Dependent Variable Life Skill Development....54

Figure 6: Interaction Between Income Level and Number of Children at Home for the Dependent Variable Career Development....68

Figure 7: Interaction Among Race, Income Level, and Number of Children at Home for the Dependent Variable Career Development....70

Figure 8: Interaction Between Income Level and Number of Children at Home for the Dependent Variable Educational Planning....72

Abstract

The purpose of the researcher was to investigate the personal and educational needs of adult students. The independent variables were age, gender, marital status, number of hours enrolled, income, race, and number of children in the home. The dependent variables were life skill development needs, career development needs, educational planning needs and association with others needs. The total sample size was 198 students. Five composite null hypotheses were tested employing a three-way analysis of variance. Total comparisons made were 140; of which 56 were recurring, giving a total of 84 comparisons. Of the 84 comparisons, 18 were statistically significant at the .05 level. Of the 18 comparisons which were statistically significant, 10 were main effects, and 8 were interactions.

The results of the present study appeared to support the following generalizations:

1. Married students have greater educational planning needs than single students.

2. Students with income levels from $21,000-$29,999 have greater association with others needs than students with incomes over $50,000.

3. There was an interaction between gender and marital status for the dependent variable career development.

4. There was an interaction between age and credit hours enrolled for the dependent variable career development.

5. There was an interaction between age and credit hours enrolled for the dependent variable educational planning.

6. There was an interaction between age and credit hours enrolled for the dependent variable association with other.

7. There was an interaction between age and credit hours enrolled for the dependent variable life skills development.

8. There was an interaction between income level and number of children at home for the dependent variable career development.

9. There was an interaction among race, income level and number of children at home for the dependent variable career development.

10. There was an interaction between income level and number of children at home for the dependent variable educational planning.

Introduction

Definition and Characteristics of the Adult Learner

Betters-Reed (1980, cited in Hughes, 1983) reported over one-third of all college students were over the age of 25. The National Center for Educational Statistics (cited in The College Board, 1985) predicted that by 1992, the number of college students over the age of 25 will increase to 50%. According to the U.S. Department of Education Center for Educational Statistics (cited in Fenske & Hughes, 1989), trends in all higher educational institutions showed enrollment between 1978-1985 grew slightly despite declines in the traditional college-age population of 18 to 24 years old. Diversity in student characteristics has been the distinguishing feature of this growth. Certainly much of the diversity in the community college student population growth was age. The influx of the older student has resulted in special needs for the community college.

In an effort to compile more information about community college adult students and their needs, Graham (1987) analyzed data collected using the American College Testing Adult Learner Needs Assessment Survey (ACTALNAS). During the interval, 1981 to 1986, adult learners from 35 states completed the survey. Graham analyzed results of instruments completed by community college and vocational school students 23 years of age and older. This sample consisted of 4,102 persons surveyed. The data from this group

provided the following demographic information: (a) 75% were currently enrolled in credit courses or had been enrolled during the past year, (b) almost 67% of the respondents were female, (c) 60% were married, (d) approximately 60% had at least one child, (e) 80% had completed 2 years of college or less, while 10% had completed bachelor's or higher degrees, and (f) 67% reported family incomes of $35,000 or less.

The present researcher found terms such as nontraditional, re-entry, stop-outs, adult learners, returning students and part-time students being employed to describe adult students. Various ages were also used to define the adult students. Some sources cited from 21 years and older, some from 23 years and older, some from 25 years and older, and some 30 years and older. Hughes (1983) reviewed the writing of a number of authors and found that adult students, regardless of the word used to refer to them, seemed to have (a) multiple commitments, (b) be off-campus directed, and (c) recently experienced more informal learning situations than formal learning situations.

Once a definition has been agreed upon it is still difficult to define characteristics and needs unique to adult students. Hughes (1983) stated that, "non-traditional students cannot be perceived as one uniform group" (p. 55). In Lenning and Hanson's (1977) study of differences in age groups, they concluded, "Older students are a very diverse group, and any generalizations made about them are undoubtedly untrue for large numbers" (p.285). Graham's (1987) conclusion from his analysis of the data collected using the

American College Testing Adult Learner Needs Assessment Survey (ACTALNAS) was:

> This study indicates that the community college adult learner may be a more complex group of adult learners than previously thought. It also suggests that local and regional planners should assess their student populations and get an accurate picture of their needs and characteristics when deciding marketing and programming plans. (p.47)

Graham (1988) utilized data from the ACTALNAS and a chi square statistic to determine the relationship between responses given in 1982 and before with the responses given in 1986. There were numerous statistically significant differences found. However, Graham only looked at differences in responses to student characteristics and preferences. He did not examine differences in adult student needs. The results of Graham's study depicted a diverse population and an ever changing one. Lenning & Hanson wrote in 1977 about the changing demographics of adult students, "One thing is certain, these new groups of adults entering postsecondary education will have more needs than most of the adults who are currently students in postsecondary education" (p.286).

The literature related to the needs of adult students was organized into the four categories found on the ACTALNAS. The four categories are (a) needs relating to life skills development (which includes academic skill preparation), (b) needs relating to career development, (c) needs relating to educational planning, and (d) needs relating to association with others.

Life Skills Development Needs

A needs assessment of returning adult students was conducted through the Two-Year College Development Center at the State University of New York at Albany (Mangano & Corrado, 1979). Six representative New York State two-year colleges were selected to participate in the study. The survey was developed with input from college personnel, review of other survey instruments and a pilot test of the items. The final survey consisted of 10 demographic items and 75 scale items tapping five conceptual categories; academic survival skills, personal-social development, instructional patterns, administrative policies, and student support services (Mangano & Corrado, 1980). The sample group consisted of 199 faculty and staff (66% response); 561 traditional, 18-24 years old college students (50% response); and 529 re-entry, 25 years old and older adult students (59% response). The surveys were administered by mail and on-campus. The full-time adults' profile was found to be similar to the younger students' responses. However, the older students differentiated themselves. An item with a mean greater than one-half of the standard deviation above the grand mean was classified as a first order (highest priority) need, and an item with a mean less than one-half of the standard deviation below the grand mean was classified as third order (lowest priority) need. Re-entry adults indicated a first order need for (a) improving test-taking skills, (b) vocabulary and mathematic skill improvement, (c) time management, and (d) setting goals. Both younger and older students

expressed a need for improved concentration, memory, and study skills.

Devlin and Gallagher (1982) conducted a survey of students needs at one of British Columbia's 15 community colleges. The Capilano College mission, when established in 1968, was to be a true "college of the community" (p. 34) and treat all applicants alike regardless of age, gender, number of hours enrolled in, or urban or rural background. A modified version of the survey utilized by Mangano and Corrado (1979) was employed. A total of 72 classes were surveyed, resulting in a return of 711 useable survey instruments. The primary concern was to determine if students' reported perceived needs differed according to age. Characteristics of the sample were (a) 65.5% female, (b) 65% ages 15-24, (c) 66.6% full-time students, (d) 41.9% enrolled in transfer curriculum (e) 40.6% enrolled in two-year employment related program, (f) 14,9% enrolled in a one-year program, (g) 62.9% day students, (h) 8% night students, (i) 29.1% both day and night, (j) 52.9% had been enrolled in the past year, and (k) 48% had been away from formal education for at least one year. The results were reported for two age groups; those younger students, age 24 and younger (n=464), and older students, age 25 and older (n=247). As in Mangano and Corrado's (1979) study, a need was classified as first order (highest priority) if the mean for that item fell above one-half of one standard deviation above the grand mean. The third order (lowest priority) needs fell below one-half of one standard deviation below the grand mean. The results were similar to the New York study (Mangano & Corrado, 1979). Of

the 77 items on the survey, the two age groups rated 60 items the same; only 17 items distinguished between the two age groups. Even though both older and younger students had a large common set of needs, "older students, however, appear to have a modestly greater number of needs than do younger students.....there is evidence to suggest that older students 'feel' their needs more acutely" (Devlin & Gallagher, 1982, p. 40). Life skills development needs which both age groups reported as highest priority were (a) improving study skills, (b) time management, (c) improving concentration and memory, and (d) setting goals. The older students additionally reported a high priority for help with preparing term papers and test taking skills. Contrary to the findings of Mangano and Corrado's (1980) study, both groups reported lowest priority for help with mathematic skills.

In a longitudinal study by Lenning and Hanson (1977), the ACT Career Planning Profile was administered to a representative sample of 17,137 students just entering 100 community colleges or technical schools across the country. A total of 7,933 students continued with the follow-up study. For comparison purposes, the sample was split into the following four age groups: 19 and younger (2,676 men and 2,283 women), 20-24 (1,166 men and 413 women), 25-39 (559 men and 415 women), and 40 and older (182 men and 239 women). When they entered college, the students were asked to answer yes or no on 10 potential student needs. The four groups expressed similar needs for help. "In general, all students expressed a greater need for help with improving their basic skills

(studying, reading, mathematics, and technical-mechanical) than they did for help with personal needs (e.g.,choosing a major, finding a place to live, obtaining financial aid)" (Lenning & Hanson, 1977, p. 279).

In the Spring semester of 1981, a needs assessment project was conducted (Barrow, Cox, Sepich & Spivak, 1989) to determine the relationship between self-reported needs and the use of college services. A random sample of 885 university students was identified. The demographic characteristics were (a) 94% White, (b) 54% male, (c) 90% single, (d) 33.3% graduate students, (e) 67% undergraduates, and (f) mean age was 21 years old. The modified likert scale instrument contained 51 items related to various developmental needs. Copies of the instrument were mailed to 779 students and 106 students were interviewed over the telephone resulting in a 34.5% return rate by mail and a 79.2% completion rate by telephone. Both methods reported the same five highest rated needs. Three of the five highest reported needs were life skills development needs; setting reasonable goals, improving communication skills, and managing stress. Duffy and Fendt (1984) also cited stress management as a high need of adult students.

The Women's Opportunities Network at the University of Georgia (Dwinell, 1980) surveyed the needs of women students age 26 and older enrolled in the Fall, 1979. The survey form was a modification of one developed by McKinstry at the University of Missouri. The survey form was sent to 1621 women and a total of 303 returned the survey for a 19% return rate. A statistical package for social

sciences was utilized to compute frequencies and breakdown problems, services, and programs by age. The demographics of the sample were:

1. age: under 26 (n=25), 26-30 (n=127), 31-35 (n=75), 36-40 (n=45), 41-45 (n=13), 46-50 (n=10), and over 50 (n=8);

2. ethnic background: Black (n=14), White (n=271), Native American (n=3), other (n=14), and no response (n=1);

3. marital status: single (n=89), married (n=146), divorced (n=59), widowed (n=7), and separated (n=2); and

4. children: having children (n=130) and not having children (n=173).

From a table reporting service and program distribution by age groups the present researcher extracted the following life skills development needs: (percentages were rounded to the nearest whole number.)

1. Forty-one percent of all women reported a need for exercise and weight control.

2. Fifty-eight percent of all women reported a need for knowledge regarding legal rights as a woman. In fact in every age group, this was the second greatest need expressed.

3. Fifty-one percent of all women reported a need for knowledge regarding consumer rights.

4. Thirty-six percent of all women reported a need for time management.

5. Forty-four percent of all women reported a need for managerial skills.

From the survey of 4,102 community college and vocational students, Graham (1987) reported on the personal and developmental needs of the adult learner. One-third to one-half of the respondents indicated they needed considerable or moderate amounts of assistance with several of the items in the life skills development category (e.g., "increasing math skills, improving writing skills, developing speaking abilities, improving reading comprehension or reading speed, improving study skills, developing personal confidence, taking exams better, and learning how to handle daily pressure" p. 46).

Using the ACTALNAS instrument that Graham analyzed data from in 1987, Valerius-Bonnar (1988) investigated the needs of 163 nontraditional students. The population consisted of students 25 years old or older, enrolled in at least one credit hour and a resident of the State of Kansas. All subjects were from one public university. The researcher surveyed nontraditional student needs in four areas: (a) life skills development, (b) career development, (c) educational planning, and (d) association with others. Six independent variables were investigated. They were gender, marital status, income, opinions pertaining to scheduling of classes, commuting status, and number of dependent children. Twenty-four comparisons were made employing one-way analysis of variance. Single nontraditional students reported a statistically significant higher inventoried need for life skills development area than married nontraditional students. Also, nontraditional students preferring daytime classes reported a statistically significant

higher inventoried need for life skills development area than nontraditional students preferring weekend or evening classes.

Duffy and Fendt (1984) identified five major trends affecting the adult learner and within each trend listed needs. One of the five trends pertaining to life skills development needs was the changing work place. Because of this trend, workers will need help with (a) learning new hardware and software, (b) learning problem solving skills, (c) time management and planning, and (d) supervisory development. Parks (1982) looked at some needs that may be common to both the traditional age student and the adult student. However, he maintained that the way in which planners meet the needs of each population must be different. For example, although older students and younger students may both need developmental education, an adult may need it as a confidence builder to enter more advanced classes.

Career Development

Sewall (1984) surveyed adult college students and non-students to determine their preferences for class schedules, course offerings and special services. The sample consisted of 112 students, 22 years of age or older, and 31 non-students, 22 years of age or older. The instrument was developed by the Wisconsin Assessment Center staff. The University of Wisconsin Center Baraboo/Sauk County is 1 of 12 two-year campuses in the University of Wisconsin Center System. Career planning services were identified by the students as needing improvement.

Graham (1987) reported respondents indicated a greater need for assistance in career development and life skills development than educational planning or association with others. Valerius-Bonnar (1988) found single nontraditional students also reported a statistically significant higher inventoried need for career development than married nontraditional students. Nontraditional students with incomes less than $6,000 reported statistically significant higher inventoried needs for career development than nontraditional student earning $24,000 and greater. Nontraditional students preferring daytime classes reported a statistically significant higher inventoried need for career development than nontraditional students preferring evening classes.

One of Duffy and Fendt's (1984) five trends affecting students and their needs was "people are changing careers an average of 8 times in a lifetime" (Knowles, 1979 cited in Duffy & Fendt, 1984, p. 42). Because of this trend people will need help with (a) gaining information about new careers, (b) defining their learning needs, (c) career counseling, and (d) adapting to new work and learning settings. Barrow, Cox, Sepich, and Spivak (1989) reported two of the five greatest needs of university students were career planning and understanding ones interests, skills, and personality. Parks (1982) contended that an adult facing the second or third career change will not need the same type of counseling as the 20 year old.

As the lifestyles of the American family change, students will need more help marketing themselves for jobs (Duffy and Fendt, 1984). Dwinell (1980) reported 45% of women surveyed at the

University of Georgia reported a need for career and vocational counseling. Mangano and Corrado (1979) reported re-entry students expressed a high need for courses providing specific job skills. At Capilano College (Devlin and Gallagher, 1982) both younger and older students expressed a high need for courses providing specific job skills and the older group expressed a high need for placement services.

Payton (1985) wrote, "a review of the literature on minority women makes it painfully obvious that, as a result of both historical and social factors, these populations do indeed have special needs" (p. 88). According to the U.S. Department of Education (1983, cited in Payton, 1985) "minority women comprise 16.7% of the total numbers of enrolled students, but only 13.7% of the students receiving bachelor's degrees" (p. 86). Payton cited various needs minority women have that institutions of high education must strive to meet. One need cited was career counseling. Various career options may not have occurred to minority women with few professional role models.

Educational Planning

A study (Claus, 1986) was conducted by the Appalachia Educational Laboratory to determine the conditions that impede or facilitate adult students' success during their first semester. The sample consisted of 70 community college students. They varied in age from 22 to 57, had no prior postsecondary educational experience, and were enrolled in at least two major-related courses. Information was collected by interviews with all subjects,

observations in classes and a daily log filled out by each student for one week. Adult students were affected by conditions related to finances, home and family, transportation, unique personal factors, goals and commitment, academic adjustment, the classroom, and the institution. Numbers of responses were not reported. Therefore, the importance of the findings was difficult to determine. The results were used as a basis for interventions directed at helping with problems outside the classroom. These included child care, adult support groups, training for all staff to be more sensitive to adult students problems, and increased information on financial aid, costs, and car pooling. In Lenning and Hanson's (1977) study both men and women, in the two middle age groups (20-24 and 25-39) expressed a slightly greater need for help with obtaining financial aid than did either the youngest (19 and younger) or oldest (40 or older) groups.

Sewall (1984) reported that about one-third of the respondents were interested in such services as a place to study and an adult support group. Mangano and Corrado (1979) reported re-entry adults rated a place to study at home as a first order (highest priority) need and a place to study on campus as a third order (lowest priority) need. Areas identified as needing improvement included expanded cafeteria and library hours. Devlin and Gallagher (1982) at Capilano College reported both older and younger students rated a place to study at home as a first order need, and the older students also rated a place to study on campus as a first order need. Younger students reported a place to study on campus as a second order need.

Parks (1982) suggested that traditional and adult students had some of the same needs but the way needs are met may differ. In the area of student activities, Parks suggested that an adult student may not be interested in intramural football but may need an adult support group. Thirty-four percent of the women in Dwinell's (1980) survey reported a need for women's support groups.

The results of Claus' (1986) study were used as a basis for interventions directed at the improvement of academic services. Even though Claus referred to these needs as academic services, they correspond closely with the Educational Planning section of the ACTALNAS. Claus' findings lead him to suggest (a) more thorough counseling at the time of enrollment, (b) more information on majors and careers, (c) more mandatory advising sessions, and (d) closer assessment of skill levels. Devlin and Gallagher (1982) reported older students expressed a first order (highest priority) need for taking a variety of classes before selecting a major.

Duffy and Fendt (1984) cited the need for nontraditional delivery systems. Mangano and Corrado (1979) reported re-entry adults expressed a first order need for speedy registration procedures, academic counseling, life-experience credit and independent study courses. In Devlin and Gallagher's 1982 study, the above mentioned needs, with the exception of independent study courses, were reported as second order needs (not high, not low); and independent study courses were reported as third order needs. Campus tours during first semester and bus service were rated as third order (least) need in Mangano and Corrado's study. In Devlin and

Gallagher's study bus service was reported as a second order need by older students and as a third order need by younger students. Campus tours during first semester were rated as third order (lowest priority) by both younger and older groups. Dwinell (1980) reported 25% of the women surveyed expressed a need for orientation programs for nontraditional students.

Only 19% of the women in Dwinell's (1980) survey reported a need for child care services, while just under 50% of the women surveyed had children. Mangano & Corrado (1979) reported child care as a third order (lowest priority) need. Devlin and Gallagher (1982) reported child care as a third order need for the younger group and a second order need for the older group. Sewell (1984) reported about 12% were interested in child care. Most of the literature reviewed by the present researcher indicated a minimal need for child care by the returning adult. However, Tittle and Denker (1980, cited in Holliday, 1985) identified conditions which hindered a woman's return to higher education and cited the single most critical problem for returning women was the lack of available child care.

Payton (1985) suggested the following institutional changes could help meet the needs of minority women: (a) include minority staff as test givers and assistants to help lower the level of test anxiety, (b) enlist minority women faculty and administrators as well as students, (c) conduct workshops for those individuals responsible for recruiting minorities, (d) employ people who are knowledgeable and have experience working with the culturally different, and (e) conduct minority women's support groups.

In Graham's (1987) analysis of data from the ACTALNAS, respondents reported the least need for assistance in two broad categories--educational planning and associations with others. Concurring, Valerius-Bonnar's (1988) study reported no significant differences related to educational planning needs.

Association with Others

Duffy and Fendt (1984) identified the remaining two of the five trends occurring in society as:

1. People are looking for skill training in their own community. Because of this trend students will look for learning related to self-help issues and personal growth.

2. The lifestyles of the American family are changing. Because of this trend students will need more personal counseling, and programs for single parents and women.

Mangano and Corrado (1979) reported re-entry adults expressed a first order (highest priority) need for family encouragement toward their education. Devlin and Gallagher (1982) found both the younger and older students also expressed a first order need for family encouragement toward their education.

Dwinell (1980) reported 42% of the women surveyed at the University of Georgia expressed a need for counseling services. However, in Mangano and Corrado's (1979) study re-entry students rated personal counseling as a third order (lowest priority) need. In Devlin and Gallagher's study both the younger and older students considered personal counseling as a third order need.

One of the differences in the traditional age students and the adult re-entry students surveyed was the younger students indicated a higher need for extracurricular activities and for personal-social development (Mangano & Corrado, 1979). In fact, the re-entry adults rated getting together with other students, fitting in with other students and working with other students as third order (least) needs. Contrary to the results of this study, Devlin and Gallagher (1982) reported older students expressed a greater need for getting together after class than did younger students.

Payton (1985) wrote, "a major concern reported by minority women enrolled at predominantly white institutions is the lack of male companionship" (p.88). Black women particularly found this to be a problem. In Payton's discussion of Asian, Hispanic, and Indian women this lack of male companionship was not a mentioned concern.

Valerius-Bonnar (1988) found divorced nontraditional students reported a statistically significant higher inventoried need for association with others than married or single nontraditional students. Also, nontraditional students with incomes of less than $6,000 and incomes between $12,000 and $17,999 reported statistically significant higher inventoried needs for association with others than nontraditional students earning $50,000 or more. Graham (1987) reported respondents indicated the least needs in association with others and the educational planning area.

Summary

Hughes (1983) wrote an extensive review of the literature relating to non-traditional students needs. The most consistent themes in the literature reported by Hughes were:

1) programs directed toward improvement of academic "survival" skills such as study skills and test-taking skills;

2) programs designed to improve skills of a more personal nature such as time management or assertion training;

3) programs related to career exploration or development such as resume writing; and,

4) programs of a social nature. (p. 58).

The literature reviewed by the present researcher seemed to follow the themes cited by Hughes. The present researcher found little or no research relating to the needs of men, needs of minorities, or needs of students enrolled in various numbers of credit hours.

Statement of the Problem

The purpose of the researcher was to investigate the personal and educational needs of adult students.

Importance of the Research

With the increasing number of adults returning to college, it is the responsibility of institutions to provide the services necessary for adult students to succeed. In order to provide the services that will meet the needs of adults, educators must know the needs. Many times decisions, to add services or discontinue them, are made based on informal observation by the administration or what another college has decided to do in a particular area. The results of this study can contribute to the information used by college administrators to make decisions based on statistical research. Student services professionals could also benefit from the results. Parks (1982) alerted student services professionals of the need to expand traditional student development model to include adults. Instructors could also benefit from being knowledgeable about the results of this study. Claus (1986) conducted a study and found that adults expected instructors to be more aware of their needs.

Much of the research reviewed dealt with needs of women and adults 25 years of age and older. The results of this study will contribute to the information about adult students' needs as they relate to various ages, number of hours students were enrolled in during the surveyed semester, marital status, race, and men.

An additional use for the data collected and the findings of this study is in the application for grant funding. There is a lack of

organized data, pertaining to adult student characteristics and needs, available at this researcher's community college.

The results of the present study will provide information pertaining to the following questions:

1. Is there an association between gender and the inventoried needs of the community college students?
2. Is there an association between marital status and the inventoried needs of the community college students?
3. Is there an association between age and the inventoried needs of the community college students?
4. Is there an association between number of credit hours enrolled and the inventoried needs of the community college students?
5. Is there an association between race and the inventoried needs of the community college students?
6. Is there an association between income level and the inventoried needs of the community college students?
7. Is there an association between number of children at home and the inventoried needs of the community college students?

Composite Null Hypotheses

All null hypotheses were tested at the .05 level of significance.

1. The differences among the mean inventoried needs scores according to gender, marital status, and age of community college students will not be statistically significant.

2. The differences among the mean inventoried needs scores according to marital status, age and number of credit hours enrolled of community college students will not be statistically significant.

3. The differences among the mean inventoried needs scores according to age, number of credit hours enrolled, and gender of community college students will not be statistically significant.

4. The differences among the mean inventoried needs scores according to number of credit hours enrolled, gender, and marital status of community college students will not be statistically significant.

5. The differences among the mean inventoried needs scores according to race, income level, and number of children living at home of community college students will not be statistically significant.

Definition of Variables

Independent Variables

All independent variables were taken from self reported information.

1. Gender: The two levels were male or female.

2. Marital Status: The variable was divided into two post hoc groups of (a) single (included never married, separated, widowed, and divorced), and (b) married.

3. Age: The variable was divided into three post hoc groups of (a) 22 years old or less, (b) 23 years old to 34 years old, and (c) 35 years old and greater.

4. Number of credit hours enrolled: This information was taken from an additional question the researcher added to the back of the survey instrument. An I.B.M. memory typewriter was used to print the question directly on the survey. The three levels of response were (a) 5 hours or less, (b) 6 to 11, and (c) 12 or more hours.

5. Income: The variable was divided into six post hoc groups of (a) less than $12,000, (b) $12,000 - $20,999, (c) $21,000 - $29,999, (d) $30,000 - $50,000, (e) over $50,000, and (f) prefer not to respond.

6. Race: The variable was divided into three post hoc groups of (a) Caucasian/White, (b) Hispanic/Mexican (including Puerto Rican, Cuban, and other Hispanic origin), and (c) other minorities (including Asian, Oriental, Pacific Islander, Black and Indian).

7. Number of Children at Home: The variable was taken directly from the survey and the groups were (a) none, (b) one, (c) two, (d) three, and (e) four or more.

Dependant Variable

The dependant variables were the scores obtained from responses to items in four categories on the Personal and Educational Needs Section of the survey instrument. The categories were:

1. Life Skills Development: items in this area related to (a) improving math, reading, speaking and study skills, (b) test taking, (c) time management, stress management, money management, decision making and confidence building, (d) setting goals and being a responsible consumer, and (e) leisure time use and maintaining mental and physical health.

2. Career Development: items in this area related to (a) exploring different career possibilities, (b) planning for a new job or career, and (c) learning about the actual working experience.

3. Educational Planning: items in this area related to (a) entrance requirements, different majors, and graduation requirements, (b) enrollment procedures, financial aid, and transferring prior credits, (c) car-pooling, using library facilities, and child care, (d) handicapped student needs, campus directional information, class scheduling, and college office hours, and (e) learning about CLEP exams and non-credit courses.

4. Associations with Others: items in this area related to (a) learning to get along with advisor, younger students, instructors and other at work, (b) single parenting, divorce, marital stresses and raising children, (c) conflict with job, family and school, (d) personal appearance and personal values, (e) learning how to participate in government activities and community problems, and (f) dealing with discrimination and people who think differently about issues.

Limitations of the Study

The following conditions might have effected the results of this study:

1. All the subjects were from one community college in Kansas.
2. The subject were not randomly selected.
3. The numbers of surveyed subjects from separate racial backgrounds were limited.

Methodology

Setting

Dodge City Junior College was established in 1935 as part of the local United School District (U.S.D.). In 1967, the community college system was placed under the State Board of Education, governed by local Board of Trustees, separate from the U.S.D.'s. Dodge City Community College is located on 143 acres in the northwest corner of Dodge City, Kansas. The city of Dodge City has an approximate population of 22,000. In the Spring semester 1990, the full-time equivalency enrollment was 1133.87. The total headcount was 2,422 students. Five percent (n=133) of the headcount enrollment was 17 years old or younger, 27% (n=646) was 18 to 20 years old, 7% (n= 178) was 21 to 23 years old, 6% (n=152) was 24 to 26 years old, 8% (n=191) was 27 to 29, 20% (n=494) was 30 to 39 years old,14% (n=329) was 40 to 49 years old, 5% (n=124) was 50 to 59 years old, 5% (n=109) was 60 and over, and 3% (n=68) was unknown. The ethnic representation for the entire enrollment was less than 1% (n=10) American Indians, 2% (n=42) African Americans, less than 1% (n=23) Asian Americans, 5% (n=114) Hispanic Americans, less than 1% (n=4) foreign students, and 92% (n=2229) Caucasian Americans.

Subjects

The subjects were all night students enrolled at a Kansas community college during the Spring semester, 1990. The students were enrolled in at least three credit hours. The convenient sample for this study included 363 students enrolled in 17 different, three credit hour, on-campus, night classes. The 17 classes were selected

based on enrollments (10 or more students) and were considered representative of the total college adult population. The total sample size was 198 students consisting of 112 females and 86 males.

Instrument

The instrument employed was the American College Testing Adult Learner Needs Assessment Survey (ACTALNAS). American College Testing (ACT) has developed eleven survey instruments. The final instrument was developed by ACT after conducting a pilot study (surveying over 15,000 individuals) of all 11 survey instruments. ACT's written purpose (Valiga & McClanahan, 1989) of the ACTALNAS instrument is "to explore the perceived educational and personal needs of adult students enrolled at the institution and of prospective adult students in the community" (p. 10). It is not a timed instrument but is estimated to take approximately 25 minutes to complete. The instrument consists of five sections. Section III is entitled, "Personal and Educational Needs", and consists of four categories that were used as the dependant variables. The four categories are:

1. Life Skills Development 18 items 72 possible points.
2. Career Development 13 items 52 possible points.
3. Educational Planning 17 items 68 possible points.
4. Association with Others 18 items 72 possible points.

For each item, the respondent is asked to indicate the degree to which he or she requires help in the area: a lot of help, 4 points;

medium amount of help, 3 points; a little help, 2 points; no further help, 1 point; and not important/does not apply to me, 0 point.

Instrument Reliability. Valiga (1983, cited in Valiga & McClanahan, 1989) reported reliability coefficients obtained from single administrations of the survey at three public and three private institutions. The reliability coefficients reported were based on the variation among the item means. The degree of internal consistency was estimated by reliability coefficients of .98 to .99.

Instrument Validity. According to the A.C.T. User's Guide (Valiga & McClanahan, 1989), "Validity of items in the ESS instruments depends primarily on literature review, consultation with content experts, pilot testing of the instruments, and ACT's experience in instrument design and construction" (p.16).

Some degree of content validity was determined by experts at ACT and some degree of face validity was determined by the researcher by looking at each item with respect to the intended use of the instrument. The researcher found no evidence of concurrent validity or predictive validity.

Design

A status survey design with predetermined categories and post hoc groupings was employed. The design of each composite null hypothesis was:

Composite Null Hypotheses Number 1: a 2 X 2 X 3 factorial design.

Composite Null Hypotheses Number 2: a 2 X 3 X 3 factorial design.

Composite Null Hypotheses Number 3: a 3 X 3 X 2 factorial design.

Composite Null Hypotheses Number 4: a 3 X 2 X 2 factorial design.

Composite Null Hypotheses Number 5: a 3 X 6 X 5 factorial design.

McMillian and Schumacher (1984) cited 10 potential threats to internal validity. The researcher dealt with these potential threats in the following ways:

1. History. Did not pertain to the present study because only one measure was taken.

2. Selection. The subjects were post hoc grouped from the sample. The threat of selection was violated due to groups not being randomly assigned. No attempts to control this violation were made. However, the sample was considered to be representative of the adult student population.

3. Statistical Regression. Did not pertain to the present study. The researcher did not choose groups based on extremely high or extremely low scores.

4. Testing. Did not pertain to the present study. The researcher did not utilize a pretest.

5. Instrumentation. Did not pertain to the present study. Since it was a pencil and paper instrument, it was the same for each subject.

6. Mortality. Did not pertain to the present study. The study was not a longitudinal study that lasted over several weeks or months. Therefore, subjects did not have the opportunity to drop out after the beginning of the study.

7. Maturation. Did not pertain to the present study. There was no repeated measure implemented.

8. Diffusion of Treatment. Did not pertain to present study. There was no treatment employed in this study.

9. Experimenter Bias. Did not pertain to the present study. The researcher did not administer the surveys and therefore could not have biased the subjects.

10. Statistical Conclusion. The researcher violated two mathematical assumptions of the three-way analysis of variance. Equal distribution of subjects in cells was violated. The effects of this were corrected by employing a general linear model. Also, random sampling was violated.

McMillian and Schumacher (1984) also cited two potential threats to external validity. The researcher dealt with these potential threats in the following ways:

1. Population External Validity. The sample was not randomly selected, the subjects were from one community college, and the subjects were all night students. These three conditions were viewed as threats to the population external validity. Results of this study should be generalized only to similar groups.

2. Ecological External Validity. Did not pertain. Data were collected with a standardized instrument using standard procedures. No treatment was administered.

Data Collection Procedures

The researcher wrote the appropriate community college dean and requested permission to conduct research (Appendix A). After permission was granted (Appendix B), the researcher asked the instructor of each of the 20 classes for their permission and cooperation. Three of the instructors declined participation for various reasons. The 17 participating instructors of the classes

surveyed were trained (Appendix C) by the researcher to administer the instrument. The instructors were provided with a written introduction and directions to the students (Appendix D), enough instruments for each enrolled student in their class, and a labeled manilla envelope. The instructors were asked to return the completed instruments (along with the unused instruments) in the labeled manilla envelopes to the college records office the day after the instruments were completed. There were 214 instruments returned. With 363 students enrolled in the 17 surveyed night classes, this resulted in a 76% return rate. Two reason the return rate was not higher were (a) students were given the option not to participate, and (b) several students were enrolled in more than one of the 17 participating classes. Sixteen of the instruments returned had missing information for at least one of the independent variables and were not useable. This left 198 instruments for analysis.

Research Procedure

The study was completed employing the following global operations:

1. a topic was selected based on the researcher's interest, institutional need, and brief review of past research,
2. permission to conduct research was granted by the community college,
3. an ERIC search was conducted by the researcher at Forsyth Library on the Fort Hays State University campus,
4. a review of the related literature was completed,

5. an instrument was selected,

6. a thesis proposal was written, presented and defended to the thesis committee,

7. sample was identified,

8. the data collectors were trained and the data were collected,

9. the data were coded for the computer center,

10. the data were analyzed to determine significant findings,

11. the thesis was compiled, presented and defended to the thesis committee, and

12. the final edited copy was produced.

Data Analyses

The following were compiled:

1. appropriate descriptive statistics,

2. three-way analysis of variance (general linear model),

3. Bonferroni (Dunn) t-test for means, and

4. Duncan's multiple range test for means.

Results

The purpose of the researcher was to investigate the personal and educational needs of adult students. The independent variables were age, gender, marital status, number of hours enrolled, income, race, and number of children in the home. The dependent variables were life skills development needs, career development needs, educational planning needs and association with others needs. Five composite nulls were tested at the .05 level. The design for each composite null hypothesis was:

Composite Null Hypotheses Number 1: a 2 X 2 X 3 factorial design.

Composite Null Hypotheses Number 2: a 2 X 3 X 3 factorial design.

Composite Null Hypotheses Number 3: a 3 X 3 X 2 factorial design.

Composite Null Hypotheses Number 4: a 3 X 2 X 2 factorial design.

Composite Null Hypotheses Number 5: a 3 X 6 X 5 factorial design.

The results section was organized according to composite null hypotheses for ease of reference. A common format was employed for ease of comparison.

It was hypothesized in composite null hypothesis number 1 that the differences among the mean inventoried needs scores according to gender, marital status, and age of community college students would not be statistically significant. Table 1 contains information pertaining to composite null hypothesis number 1. The following were cited in Table 1: variables, sample sizes, means, standard deviations, F values, and p levels.

Table 1

A Comparison of Mean Inventoried Needs Scores According to Gender, Marital Status, and Age Employing a Three-Way Analysis of Variance

Variable	n	M*	S	F Valve	p level
		Life Skills Development			
Gender (A)					
Female	111	38.2	14.47	1.34	.2488
Male	84	36.7	12.53		
Marital Status (B)					
Single	126	37.4	12.50	0.41	.6645
Married	69	37.7	15.64		
Age (C)					
22 and less	102	38.1	13.41		
23 - 34	61	37.4	13.67	1.30	.2756
35 and greater	32	35.8	14.63		
Interactions					
A x B				0.09	.7699
A x C				0.41	.6645
B x C				0.59	.8934
A x B x C				0.11	.8934

(continued)

Table 1 (continued)

Variable	n	M*	S	F Valve	p level
		Career Development			
Gender (A)					
Female	112	29.5[c]	12.12	4.40	.0372
Male	85	27.5[d]	10.96		
Marital Status (B)					
Single	126	30.0	10.98	0.19	.6643
Married	71	26.3	12.48		
Age (C)					
22 and less	103	30.2[a]	10.99		
23 - 34	62	29.8[a]	10.69	5.38	.0054
35 and greater	32	21.6[b]	13.20		
Interactions					
A x B				5.88	.0162
A x C				1.63	.1989
B x C				0.35	.7062
A x B x C				1.84	.1612

(continued)

Table 1 (continued)

Variable	n	M*	S	F Valve	p level
		Educational Planning			
Gender (A)					
Female	111	28.5	12.65	1.88	.1720
Male	86	27.5	11.93		
Marital Status (B)					
Single	126	27.4[d]	10.86	4.40	.0374
Married	71	29.1[c]	14.58		
Age (C)					
22 and less	103	28.3[c]	11.21		
23 - 34	62	29.3[c]	12.74	2.98	.0531
35 and greater	32	24.8[d]	14.59		
Interactions					
A x B				2.82	.0950
A x C				1.76	.1755
B x C				0.08	.9275
A x B x C				1.44	.2397

(continued)

Table 1 (continued)

Variable	n	M*	S	F Valve	p level
		Associations with Others			
Gender (A)					
Female	112	24.5	12.61	1.56	.2134
Male	86	21.8	13.32		
Marital Status (B)					
Single	127	21.9	11.15	0.54	.4644
Married	71	25.8	15.46		
Age (C)					
22 and less	104	21.7	12.09		
23 - 34	62	25.4	13.11	0.01	.9866
35 and greater	32	24.7	14.97		
Interactions					
A x B				1.35	.2470
A x C				0.23	.7943
B x C				1.61	.2034
A x B x C				0.97	.3798

*Larger scores represent greater need. The possible scores and theoretical mean for each dependent variable respectively were: 0-72, 36; 0-52, 26; 0-68, 34; and 0-72, 36

[ab]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t-test for means.

[cd]Difference statistically significant at the .05 level.

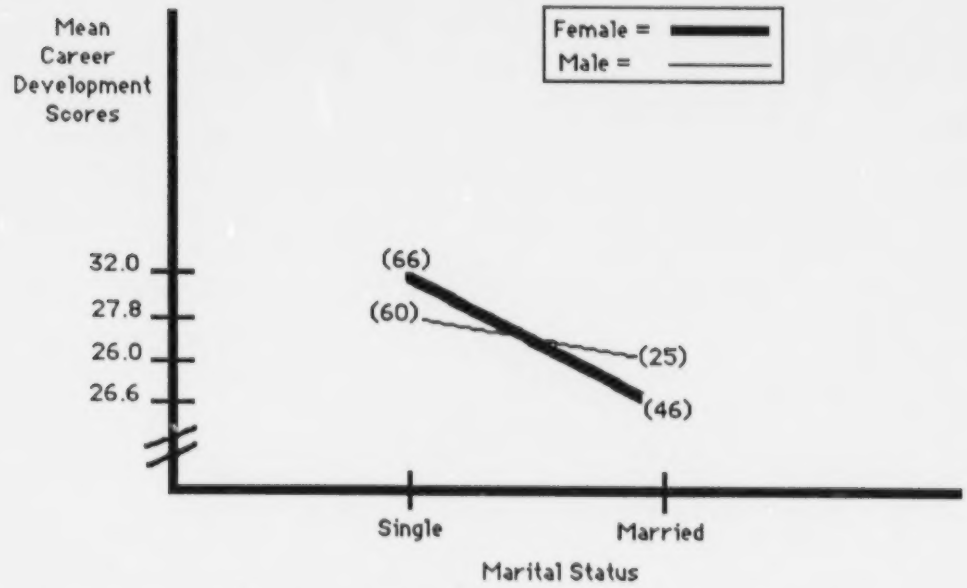
Five of the 28 *p* values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. Four of the five statistically significant comparisons were for main effects. The results cited in Table 1 indicated the following for main effects: (a) Females reported greater career development needs than males, (b) students 34 years of age and younger reported greater career development needs than students 35 years of age and greater, (c) married students reported greater educational planning needs than single students, and (d) students 34 years of age and less reported greater educational planning needs than students 35 years of age and greater. The statistically significant interaction was between gender and marital status for the dependent variable career development.

The interaction between gender and marital status for the dependent variable career development was depicted in a profile plot. Figure 1 contains mean career development scores and curves for gender.

Figure 1

Interaction Between Gender and Marital Status

for Dependent Variable Career Development



The interaction between gender and marital status for dependent variable career development was disordinal. The information cited in Figure 1 indicated: (a) single females reported numerically greater career development needs than males, (b) married male reported numerically greater career development needs than married females, and (c) single students reported numerically greater career development needs than married students.

It was hypothesized in composite null hypothesis number 2 that the differences among the mean inventoried needs scores according to marital status, age, and number of credit hours enrolled of community college students would not be statistically significant. Table 2 contains information pertaining to composite null

hypothesis 2. The following were cited in Table 2: variables, sample sizes, means, standard deviations, F values, and p levels.

Table 2

A Comparison of Mean Inventoried Needs Scores According to Marital Status, Age and Number of Hours Enrolled Employing a Three-Way Analysis of Variance

Variable	n	M*	S	F Valve	p level
		Life Skills Development			
Marital Status (B)					
Single	126	37.4	12.50	0.71	.3994
Married	69	37.7	15.64		
Age (C)					
22 and less	102	38.1	13.41		
23 - 34	61	37.4	13.67	0.01	.9894
35 and greater	32	35.8	14.63		
Hours Enrolled (D)					
1-5 hours	27	36.1[c]	15.46		
6-11 hours	36	41.0[d]	15.18	3.48	.0331
12 or more	132	36.9[c]	12.76		
Interactions					
B x C				1.66	.1930
B x D				0.31	.7321
C x D				2.14	.0781
B x C x D				0.92	.4512

(continued)

Table 2 (continued)

Variable	n	M*	S	F Valve	p level
		Career Development			
Marital Status (B)					
Single	126	30.0	10.98	0.00	.9716
Married	71	26.3	12.48		
Age (C)					
22 and less	103	30.2	10.99		
23 - 34	62	29.8	10.69	2.38	.0950
35 and greater	32	21.6	13.20		
Hours Enrolled (D)					
1-5 hours	27	23.3[b]	13.20		
6-11 hours	37	30.0[a]	11.74	3.38	.0364
12 or more	133	29.4[a]	11.08		
	Interactions				
	B x C			1.21	.3000
	B x D			0.67	.5116
	C x D			2.49	.0448
	B x C x D			1.00	.4083

(continued)

Table 2 (continued)

Variable	n	M*	S	F Valve	p level
		Educational Planning			
Marital Status (B)					
Single	126	27.4	10.86	0.70	.4053
Married	71	29.1	14.58		
Age (C)					
22 and less	103	28.3	11.21		
23 - 34	62	29.3	12.74	0.72	.4883
35 and greater	32	24.8	14.59		
Hours Enrolled (D)					
1-5 hours	27	24.9[b]	14.40		
6-11 hours	37	31.3[a]	12.66	3.57	.0303
12 or more	133	27.8	11.65		
Interactions					
B x C				0.16	.8498
B x D				0.01	.0995
C x D				3.00	.0198
B x C x D				1.10	.3582

(continued)

Table 2 (continued)

Variable	n	M*	S	F Valve	p level
		Associations with Others			
Marital Status (B)					
Single	127	21.9	11.15	0.22	.6394
Married	71	25.8	15.46		
Age (C)					
22 and less	104	21.7	12.9		
23 - 34	62	25.4	13.11	1.39	.2528
35 and greater	32	24.7	14.97		
Hours Enrolled (D)					
1-5 hours	27	23.0	13.81		
6-11 hours	37	27.1	13.97	0.83	.4369
12 or more	134	22.3	12.39		
		Interactions			
		B x C		2.37	.0968
		B x D		0.80	.4503
		C x D		2.88	.0241
		B x C x D		0.87	.4857

*Larger scores represent greater need. The possible scores and theoretical mean for each dependent variable respectively were: 0-72, 36; 0-52, 26; 0-68, 34; and 0-72, 36.

[ab]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t-test for means.

[cd]Difference statistically significant at the .05 level.

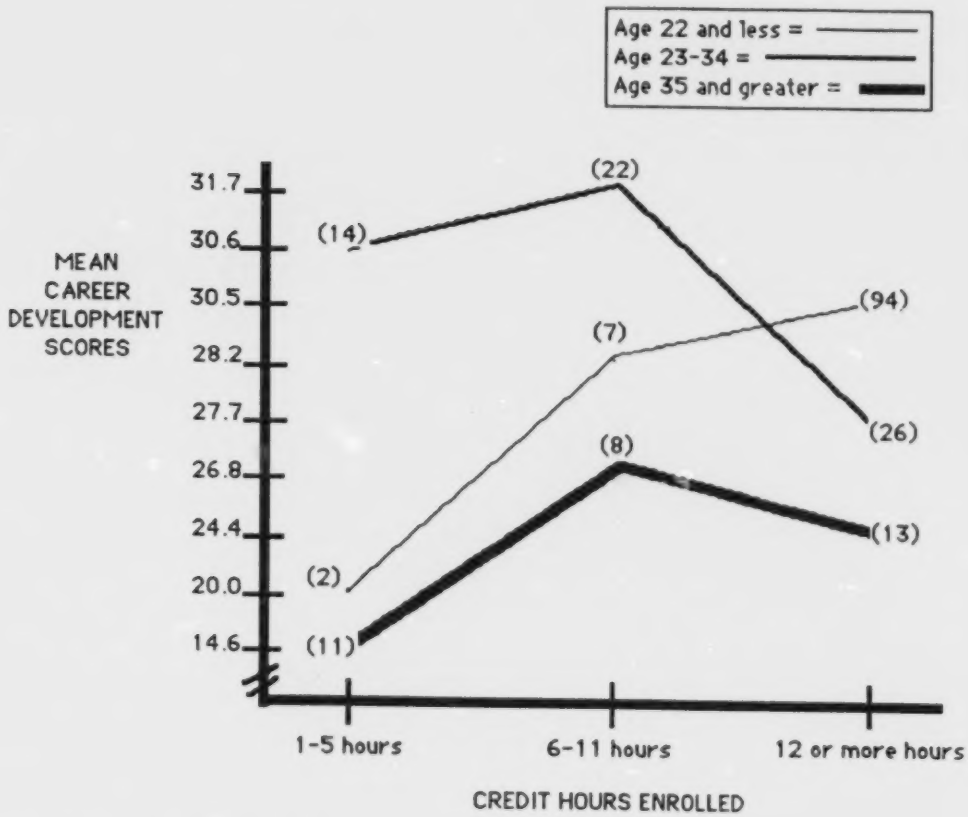
Six of the 28 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. Three of the six significant comparisons were for main effects. The results cited in Table 2 indicated the following for main effects: (a) Students enrolled in 6-11 credit hours reported greater life skills development needs than students enrolled in 5 or less credit hours and 12 or more credit hours, (b) students enrolled in 6 or more credit hours reported greater career development needs than did students enrolled in 5 or less credit hours, and (c) students enrolled in 6-11 credit hours reported greater educational planning needs than students enrolled in 5 or less credit hours. The three statistically significant interactions were: (a) age and credit hours enrolled for the dependent variable career development, (b) age and credit hours enrolled for the dependent variable educational planning, and (c) age and credit hours enrolled for the dependent variable association with others.

The interaction between age and hours enrolled for dependent variable career development was depicted in a profile plot. Figure 2 contains mean career development scores and curves for age.

Figure 2

Interaction Between Age and Credit Hours Enrolled

for the Dependent Variable Career Development



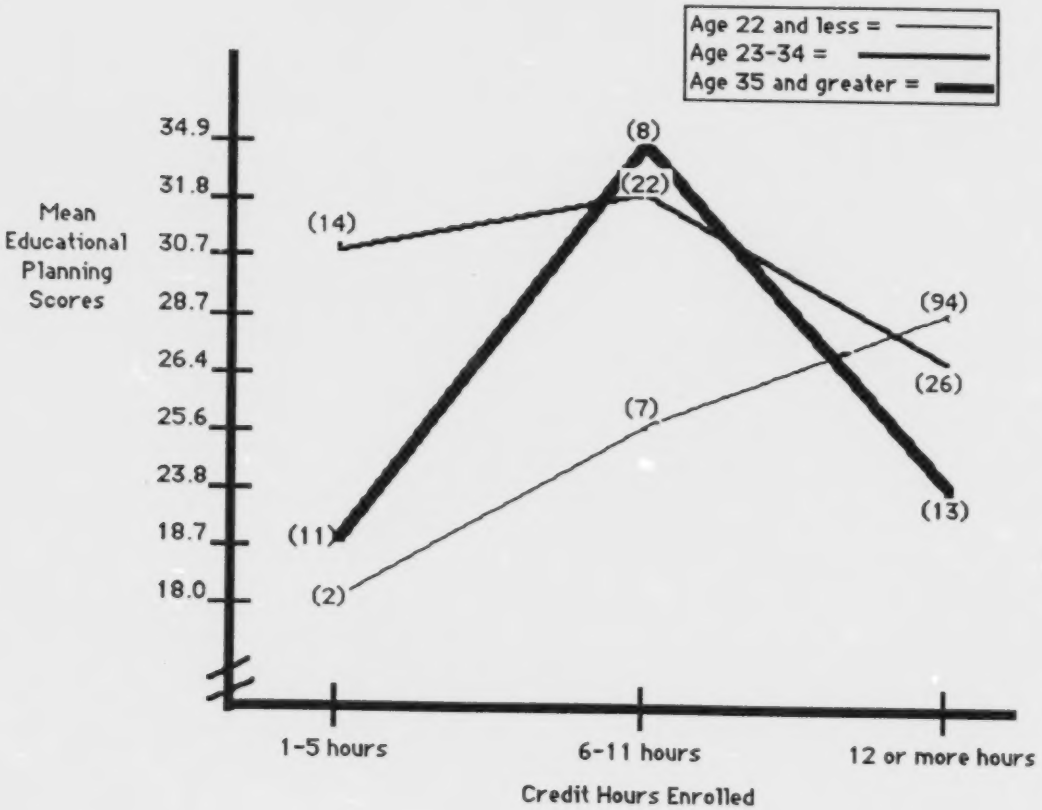
The interaction between age and credit hours enrolled for the dependent variable career development was disordinal. The results cited in Figure 2 indicated: (a) Students 22 years of age and less, taking 12 or more credit hours, reported numerically greater career development needs than did students 22 years of age and less enrolled in 11 credit hours and less, (b) students 23-34 years of age, enrolled in 11 or less credit hours, reported numerically greater career development needs than students 23-34 years of age enrolled

in 12 or more credit hours, and (c) students 35 years of age and greater reported numerically less career development needs than any other age groups.

The interaction between age and hours enrolled for the dependent variable educational planning was depicted in a profile plot. Figure 3 contains mean educational planning scores and curves for age.

Figure 3

Interaction Between Age and Credit Hours Enrolled for the Dependent Variable Educational Planning

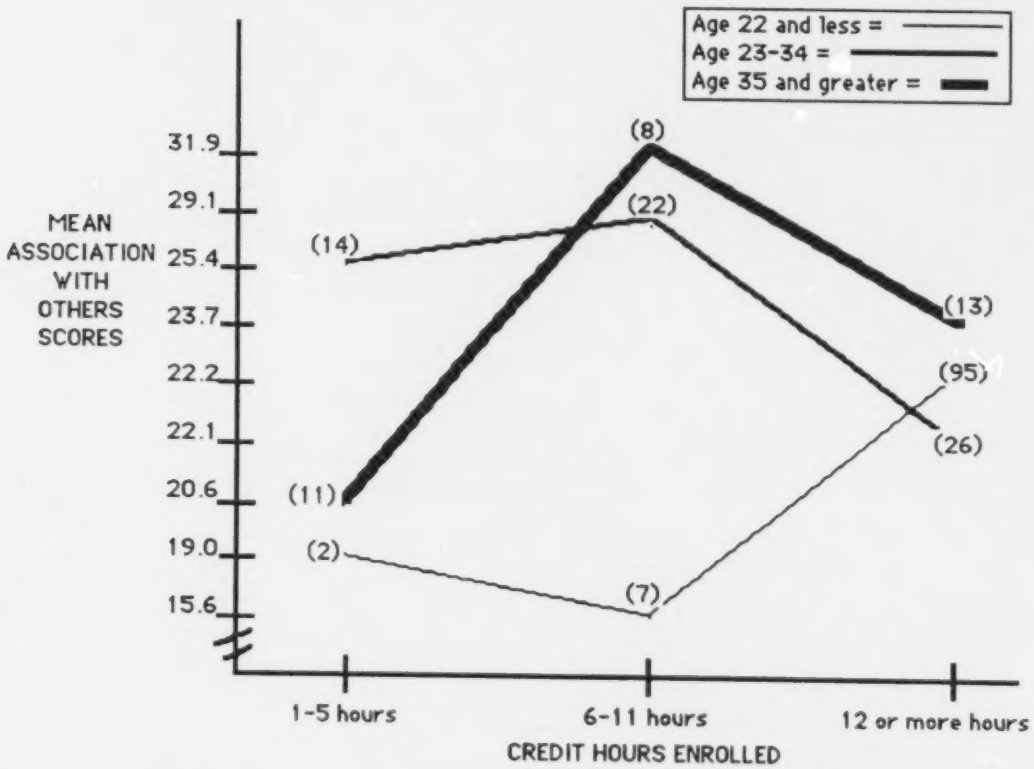


The interaction between age and credit hours for the dependent variable educational planning was disordinal. The results cited in Figure 3 indicated: (a) Students 35 years of age and greater, taking 6-11 credit hours, reported numerically greater educational planning needs than any other age group, (b) students 35 years of age and greater, and students 22 years of age and less, taking 1-5 credit hours, reported less needs for educational planning than students 23-34 years of age.

The interaction between age and hours enrolled for dependent variable association with others was depicted in a profile plot. Figure 4 contains mean association with others scores and curves for age.

Figure 4

Interaction Between Age and Credit Hours Enrolled for the Dependent Variable Association with Others



The interaction between age and credit hours enrolled for the dependent variable association with others was disordinal. The results cited in Figure 4 indicated: (a) Students 22 years of age and less, enrolled in 6-11 credit hours, reported numerically less association with others needs than did any other age group, and (b) students 35 years of age and greater, enrolled in 6-11 credit hours, reported numerically greater association with others needs than did any other age group

It was hypothesized in composite null hypothesis number 3 that the differences among the mean inventoried needs scores according to age, number of credit hours enrolled and gender of community college students would not be statistically significant. Table 3 contains information pertaining to composite null hypothesis number 3. The following were cited in Table 3: variables, sample sizes, means, standard deviations, F values, and p levels.

Table 3

A Comparison of Mean Inventoried Needs Scores According to Age, Number of Credit Hours Enrolled and Gender Employing a Three-Way Analysis of Variance

Variable	n	M*	S	F Valve	p level
		Life Skills Development			
Age (C)					
22 and less	102	38.1	13.41		
23 - 34	61	37.4	13.67	0.32	.7248
35 and greater	32	35.8	14.63		
Hours Enrolled (D)					
1-5 hours	27	36.1	15.46		
6-11 hours	36	41.0	15.18	1.50	.2250
12 or more	132	36.9	12.76		
Gender (A)					
Female	111	38.2	14.47	0.20	.6559
Male	84	36.7	12.53		
Interactions					
C x D				2.88	.0240
C x A				0.50	.6071
D x A				0.01	.9885
C x D x A				1.50	.2155

(continued)

Table 3 (continued)

Variable	n	M*	S	F Valve	p level
		Career Development			
Age (C)					
22 and less	103	30.2[b]	10.99		
23 - 34	62	29.8[b]	10.69	4.32	.0147
35 and greater	32	21.6[a]	13.20		
Hours Enrolled (D)					
1-5 hours	27	23.3	13.20		
6-11 hours	37	30.0	11.74	1.09	.3376
12 or more	133	29.4	11.08		
Gender (A)					
Female	112	29.5	12.12	0.34	.5622
Male	85	27.5	10.96		
	Interactions				
	C x D			2.05	.0893
	C x A			1.02	.3629
	D x A			0.30	.7386
	C x D x A			2.26	.0831

(continued)

Table 3 (continued)

Variable	n	M*	S	F Valve	p level
		Educational Planning			
Age (C)					
22 and less	103	28.3	11.21		
23 - 34	62	29.3	12.74	1.36	.2597
35 and greater	32	24.8	14.59		
Hours Enrolled (D)					
1-5 hours	27	24.9	14.40		
6-11 hours	37	31.3	12.66	2.22	.1116
12 or more	133	27.8	11.65		
Gender (A)					
Female	111	28.5	12.65	0.05	.8295
Male	86	27.5	11.93		
Interactions					
C x D				2.36	.0548
C x A				0.09	.9154
D x A				0.38	.6866
C x D x A				2.29	.0798

(continued)

Table 3 (continued)

Variable	n	M*	S	F Valve	p level
		Association with Others			
Age (C)					
22 and less	103	28.3	11.21		
23 - 34	62	29.3	12.74	1.36	.2597
35 and greater	32	24.8	14.59		
Hours Enrolled (D)					
1-5 hours	27	24.9	14.40		
6-11 hours	37	31.3	12.66	2.22	.1116
12 or more	133	27.8	11.65		
Gender (A)					
Female	111	28.5	12.65	0.05	.8295
Male	86	27.5	11.93		
	Interactions				
	C x D			2.36	.0548
	C x A			0.09	.9154
	D x A			0.38	.6866
	C x D x A			2.29	.0798

*Larger scores represent greater need. The possible scores and theoretical mean for each dependent variable respectively were: 0-72, 36; 0-52, 26; 0-68, 34; and 0-72, 36.

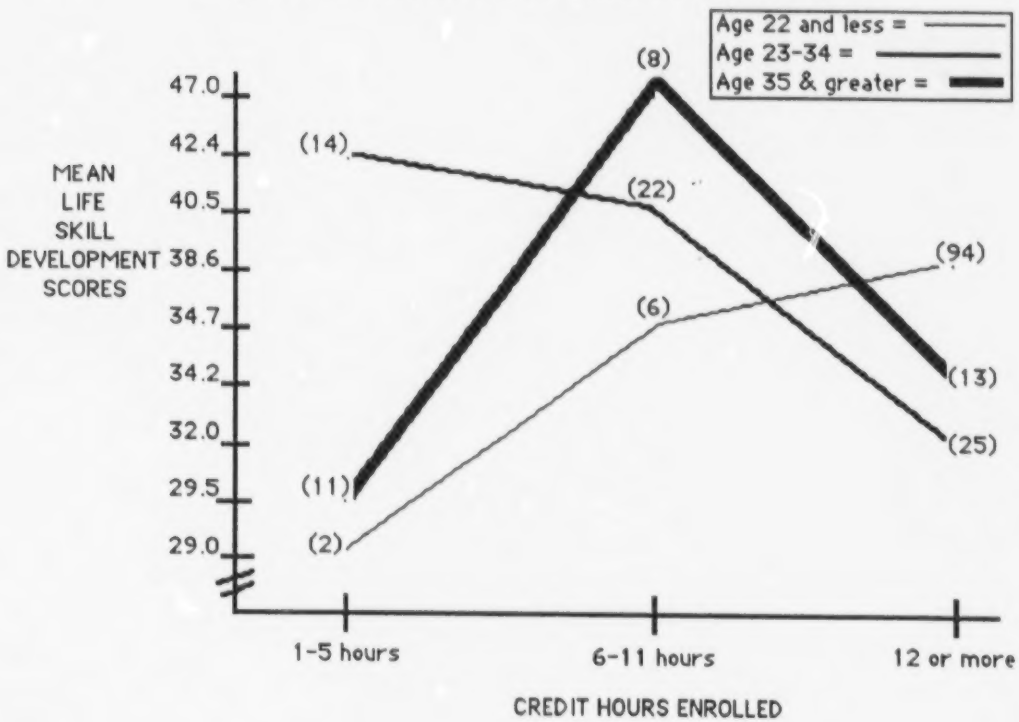
[ab]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

Four of the 28 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. One of the four significant comparisons was a main effect for age and the dependent variable career development (recurring, see Table 1). The three statistically significant interactions were: (a) age and credit hours enrolled for the dependent variable life skills development, (b) age and hours enrolled for the dependent variable educational planning (recurring, see Figure 3), and (c) age and hours enrolled for the dependent variable association with others (recurring, see Figure 4).

The interaction between age and credit hours enrolled for the dependent variable life skills development was depicted in a profile plot. Figure 5 contains mean life skills development scores and curves for age.

Figure 5

Interaction Between Age and Credit Hours Enrolled for the Dependent Variable Life Skill Development



The interaction between age and credit hours enrolled for the dependent variable life skills development was disordinal. The results cited in Figure 5 indicated: (a) Students 35 years of age and greater, enrolled in 6-11 credit hours, reported numerically greater life skills development needs than students from any other age group or number of credit hours, (b) students 35 years of age and greater, and students 22 years of age and less, enrolled in 1-5 credit hours, reported numerically less life skills development needs than the other age group or the other credit hour groups, and (c) students

enrolled in 12 or more credit hours, regardless of age, reported more homogeneous life skills development needs than students enrolled in 11 credit hours or less.

It was hypothesized in composite null hypothesis number 4 that the differences among the mean inventoried needs scores according to number of credit hours enrolled, gender, and marital status of community college students would not be statistically significant. Table 4 contains information pertaining to composite null hypothesis 4. The following were cited in Table 4: variables, sample sizes, means, standard deviations, F values, and p levels.

Table 4

A Comparison of Mean Inventoried Needs Scores According to Credit Hours Enrolled, Gender, and Marital Status Employing a Three-Way Analysis of Variance

Variable	n	M*	S	F Valve	p level
		Life Skills Development			
Hours Enrolled (D)					
1-5 hours	27	36.1	15.46		
6-11 hours	36	41.0	15.18	0.50	.6102
12 or more	132	36.9	12.76		
Gender (A)					
Female	111	38.2	14.47	1.15	.2847
Male	84	36.7	12.53		
Marital Status (B)					
Single	126	37.4	12.50	0.10	.7562
Married	69	37.7	15.64		
	Interactions				
	D x A			0.47	.6264
	D x B			1.30	.2737
	A x B			0.00	.9806
	D x A x B			0.00	.9970

(continued)

Table 4 (continued)

Variable	n	M*	S	F Valve	p level
		Career Development			
Hours Enrolled (D)					
1-5 hours	27	23.3	13.20		
6-11 hours	37	30.0	11.74	1.55	.2150
12 or more	133	29.4	11.08		
Gender (A)					
Female	112	29.5	12.12	0.56	.4570
Male	85	27.5	10.96		
Marital Status (B)					
Single	126	30.0	10.98	1.63	.2035
Married	71	26.3	12.48		
Interactions					
D x A				0.56	.5709
D x B				0.55	.5789
A x B				1.86	.1746
D x A x B				0.13	.8744

(continued)

Table 4 (continued)

Variable	n	M*	S	F Valve	p level
		Educational Planning			
Hours Enrolled (D)					
1-5 hours	27	24.9	14.40		
6-11 hours	37	31.3	12.66	1.40	.2484
12 or more	133	27.8	11.65		
Gender (A)					
Female	111	28.5	12.65	0.05	.8157
Male	86	27.5	11.93		
Marital Status (B)					
Single	126	27.4	10.86	0.82	.3672
Married	71	29.1	14.58		
Interactions					
D x A				0.52	.5940
D x B				0.36	.6947
A x B				0.01	.9040
D x A x B				1.09	.3378

(continued)

Table 4 (continued)

Variable	n	M*	S	F Valve	p level
		Association with Others			
Hours Enrolled (D)					
1-5 hours	27	23.0	13.81		
6-11 hours	37	27.1	13.97	0.25	.7804
12 or more	134	22.3	12.39		
Gender (A)					
Female	112	24.5	12.61	0.17	.6767
Male	86	21.8	13.32		
Marital Status (B)					
Single	127	22.0	11.15	0.76	.3859
Married	71	25.8	15.46		
		Interactions			
		D x A		0.14	.8704
		D x B		1.75	.1770
		A x B		0.88	.3505
		D x A x B		0.12	.8890

*Larger scores represent greater need. The possible scores and theoretical mean for each dependent variable respectively were: 0-72, 36; 0-52, 26; 0-68, 34; and 0-72, 36.

None of the 28 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were

retained. The results cited in Table 4 indicated no associations between the independent and the dependent variables..

It was hypothesized in composite null hypothesis number 5 that the differences among the mean inventoried needs scores according to race, income level, and number of children at home of community college students would not be statistically significant. Table 5 contains information pertaining to composite null hypothesis 5. The following were cited in Table 1: variables, sample sizes, means, standard deviations, F values, and p levels.

Table 5

A Comparison of Mean Inventoried Needs Scores According to Race, Income Level, and Number of Children at Home Employing a Three-Way Analysis of Variance

Variable	n	M*	S	F Valve	p level
		Life Skills Development			
Race (E)					
Caucasian/White	151	36.6	13.28		
Mexican/Hispanic	17	42.1	13.43	2.71	.0704
Other Minorities	13	44.2	16.60		
Income Level (F)					
Less than $12,000	39	36.5	12.58		
$12,000 - $20,999	36	39.5	14.29		
$21,000 - $29,999	32	38.6	14.44	2.03	.0785
$30,000 - $50,000	39	35.5	14.76		
Over $50,000	12	34.5	11.82		
Prefer not to respond	23	40.5	13.97		
Children (G)					
None	106	37.2	12.80		
One	29	36.5	14.98		
Two	23	39.6	13.83	1.35	.2538
Three	16	36.2	17.76		
Four or more	7	46.1	10.09		

(continued)

Table 5 (continued)

Variable	n	M*	S	F Valve	p level
Interactions					
E x F				1.71	.1014
E x G				1.40	.2281
F x G				0.84	.6501
E x F x G				0.44	.6452
Career Development					
Race (E)					
Caucasian/White	152	27.8	11.35		
Mexican/Hispanic	18	30.4	11.84	0.19	.8280
Other Minorities	13	32.3	14.24		
Income Level (F)					
Less than $12,000	39	28.6	9.64		
$12,000 - $20,999	38	30.3[d]	10.87		
$21,000 - $29,999	32	30.8[d]	11.41	3.12	.0107
$30,000 - $50,000	39	24.4[c]	12.40		
Over $50,000	12	25.9[c]	13.34		
Prefer not to respond	23	29.9	13.18		

(continued)

Table 5 (continued)

Variable	n	M*	S	F Valve	p level
Children (G)					
None	108	29.4	10.78		
One	29	26.4	14.38		
Two	22	27.5	9.41	0.73	.5751
Three	17	26.9	13.27		
Four or more	7	27.9	16.41		
Interactions					
E x F				1.65	.1148
E x G				0.27	.9285
F x G				1.73	.0448
E x F x G				5.05	.0076
Educational Planning					
Race (E)					
Caucasian/White	152	26.9	11.89		
Mexican/Hispanic	18	33.6	12.31	2.83	.0625
Other Minorities	13	31.3	14.69		

(continued)

Table 5 (continued)

Variable	n	M*	S	F Valve	p level
Income Level (F)					
Less than $12,000	38	26.6	11.65		
$12,000 - $20,999	38	31.6[a]	13.27		
$21,000 - $29,999	32	32.5[a]	13.18	5.06	.0003
$30,000 - $50,000	39	24.3	11.99		
Over $50,000	12	21.1[b]	11.45		
Prefer not to respond	24	27.2	7.95		
Children (G)					
None	107	26.9	11.25		
One	29	28.5	15.47		
Two	23	32.3	9.93	0.59	.6695
Three	17	26.4	14.83		
Four or more	7	29.6	15.90		
Interactions					
E x F				1.45	.1826
E x G				0.74	.5926
F x G				1.95	.0168
E x F x G				1.06	.3485

(continued)

Table 5 (continued)

Variable	n	M*	S	F Valve	p level
		Association with Others			
Race (E)					
Caucasian/White	153	22.8	12.29		
Mexican/Hispanic	18	26.3	13.86	0.41	.6654
Other Minorities	13	26.2	17.95		
Income Level (F)					
Less than $12,000	39	21.5	12.29		
$12,000 - $20,999	38	23.3	12.35		
$21,000 - $29,999	32	27.5[a]	14.65	2.94	.0148
$30,000 - $50,000	39	23.9	14.13		
Over $50,000	12	15.9[b]	9.57		
Prefer not to respond	24	23.7	11.27		
Children (G)					
None	108	21.4	11.35		
One	29	25.7	14.69		
Two	23	28.1	13.41	1.15	.3353
Three	17	19.4	13.59		
Four or more	7	36.6	16.70		

(continued)

Table 5 (continued)

Variable	n	M*	S	F Valve	p level
Interactions					
	E x F			1.24	.2824
	E x G			0.20	.9618
	F x G			1.47	.1106
	E x F x G			1.61	.2028

*Larger scores represent greater need. The possible scores and theoretical mean for each dependent variable respectively were: 0-72, 36; 0-52, 26; 0-68, 34; and 0-72, 36.

[ab]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t-test for means.

[cd]Difference statistically significant at the .05 level.

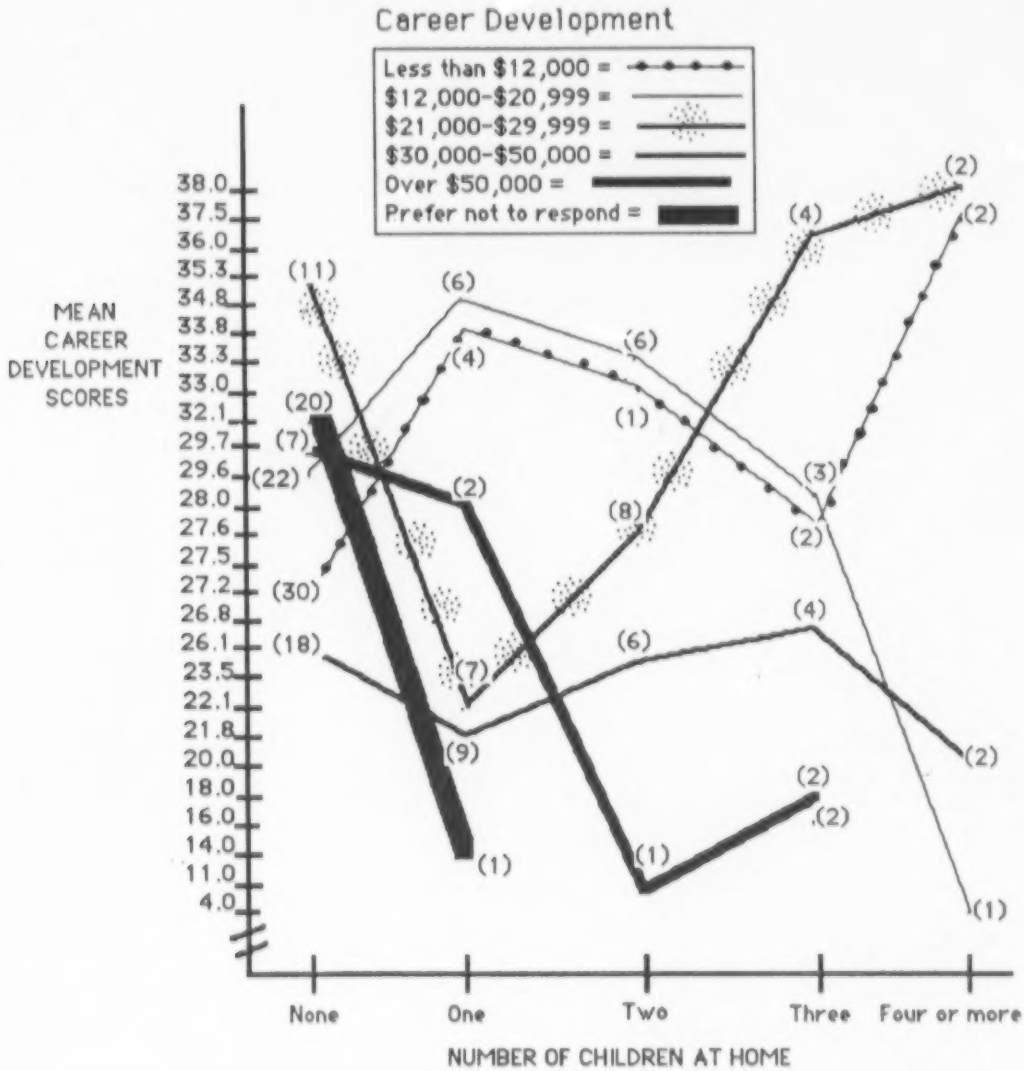
Six of the 28 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. Three of the six statistically significant comparisons were for main effects. The results cited in Table 5 indicated the following main effects: (a) Students with income levels from $12,000-$29,999 reported greater career development needs than students with income levels $30,000 and above, (b) students with income levels from $12,000-$29,999 reported greater educational planning needs than students with incomes over $50,000, and (c) students with income levels from $21,000-$29,999 reported greater association with others needs than students with incomes over

$50,000. The three statistically significant interactions were: (a) income level and number of children at home for the dependent variable career development, (b) race, income level, and number of children at home for the dependent variable career development, and (c) income level and number of children at home for the dependent variable educational planning.

The interaction between income level and number of children at home for the dependent variable career development was depicted in a profile plot. Figure 6 contains mean career development scores and curves for income level.

Figure 6

Interaction Between Income Level and Number of Children at Home for the Dependent Variable



The interaction between income level and number of children at home for the dependent variable career development was disordinal. The results cited in Figure 6 indicated: (a) Students with incomes of

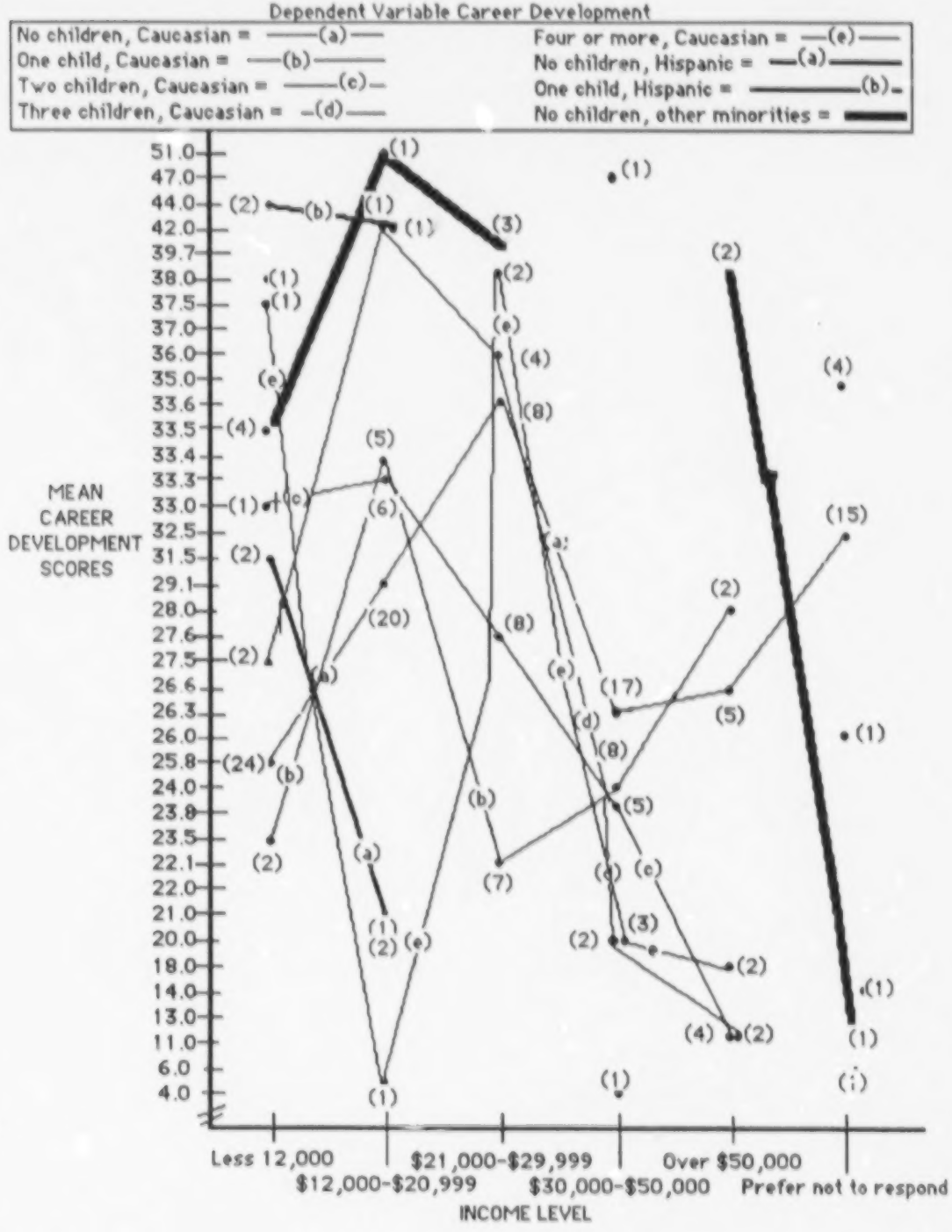
$30,000-$50,000, regardless of number of children, reported numerically less career development needs than students from any other income levels, and (b) students with incomes of $12,000 and less, regardless of number of children, reported numerically greater career development needs than students from any other income level.

The interaction among race, income level, and number of children at home for the dependent variable career development was depicted in a profile plot. Figure 7 contains mean career development scores and curves for number of children at home and race.

Figure 7

Interaction Among Race, Income Level, and Number of Children at Home for the

Dependent Variable Career Development

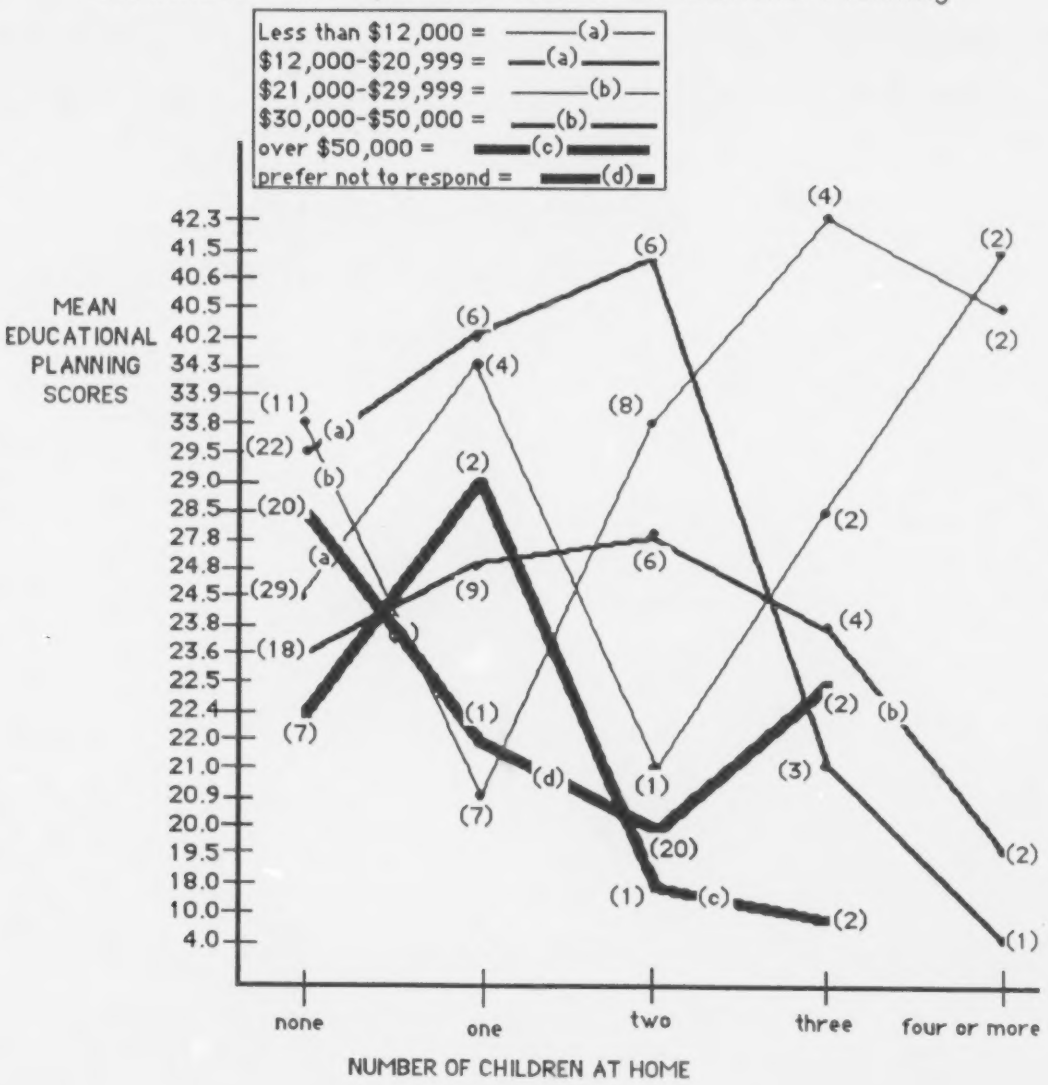


The interaction among race, income level, and number of children at home for the dependent variable career development was disordinal. The results cited in Figure 7 indicated: (a) Students from other minority groups (Blacks, Asians, Indians and etc.), regardless of income level, reported numerically greater career development needs than any other group, and (b) students with incomes of $12,000 and less, regardless of number of children or race, reported numerically greater career development needs than students with incomes of over $50.000.

The interaction between income level and number of children at home for the dependent variable educational planning was depicted in a profile plot. Figure 8 contains mean educational planning scores and curves for income.

Figure 8

Interaction Between Income Level and Number of Children at Home for the Dependent Variable Educational Planning



The interaction between income level and number of children at home for the dependent variable educational planning was disordinal. The results cited in Figure 8 indicated: (a) Students who preferred

not to respond to income level, regardless of number of children, reported numerically less educational planning needs than any reported income level, and (b) students with no children, regardless of income, reported more homogeneous educational planning needs than students with children

Discussion

Summary

The purpose of the researcher was to investigate the personal and educational needs of adult students. The independent variables were age, gender, marital status, number of hours enrolled, income, race, and number of children in the home. The dependent variables were life skills development needs, career development needs, educational planning needs and association with others needs. The total sample size was 198 students. Five composite null hypotheses were tested employing a three-way analysis of variance. Total comparisons made were 140; of which 56 of these were recurring, giving a total of 84 comparisons. Of the 84 comparisons, 18 were statistically significant at the .05 level. Of the 18 comparisons which were statistically significant, 10 were main effects, and 8 were interactions.

Related Literature and Results

Older students have very diverse characteristics and needs, making it difficult to describe them as one uniform group (Hughes, 1983; Lenning & Hanson, 1977; Graham, 1987). The results of the present study appeared to support the complexity of the adult student. The demographics described in each table demonstrated the

diversity in characteristics of the adult students, while the 10 main effects and the 8 interactions revealed the statistically significant diversity in needs of the adult students.

Life Skills Development. Older students distinguished themselves from younger student by indicating higher priority for needs related to life skills development (Mangano & Corrado, 1980; Devlin & Gallagher, 1982). The results of the present study tend to delineate the older students even more by finding students 35 years of age and greater reported numerically greater life skills development needs than any other group. However, the present study also reported older students enrolled in 1-5 credit hours, joined the younger students, enrolled in 1-5 credit hours, by reporting numerically the least amount of life skills development needs. Lenning and Hanson (1979) and Devlin and Gallagher (1982) found that older and younger students reported a common set of life skills development needs. The results of the present study supported these findings for students of any age enrolled in 12 or more credit hours. Therefore, the results of the present study revealed that the amount of life skills development needs depended upon the number of credit hours the student is enrolled in more than age alone.

The results of the present study did not support the findings of Valerius-Bonnar (1988). She reported that single nontraditional students had higher life skills development needs than married nontraditional students.

Career Development. Valerius-Bonnar (1988) found single nontraditional students reported higher career development needs

than married nontraditional students. The results of the present study supported and expanded the findings of Valerius-Bonnar (1988) that single females have the greatest career development needs of any other group, and that married males have greater career development needs than married females. Valerius-Bonnar (1988) also found student with incomes less than $6,000 reported higher career development needs than students earning $24,000 and greater. The results of the present study appeared to support these findings and delineate by reporting students with incomes of $12,000 and less, regardless of number of children or race, reported greater career development needs than students with incomes of over $50,000.

Payton (1985) cited career counseling as a need for minority women. The results of the present study appeared to support Payton's findings by reported students of other minorities (non-Hispanic) having the greatest career development needs of all the groups.

Educational Planning. The literature related to educational planning needs supported the belief that older students have a slightly greater need for educational planning services than younger students (Mangano & Corrado, 1979; Devlin & Gallagher, 1981). Lenning and Hanson (1977) reported students 20-39 years of age had slightly greater needs for educational planning services. The results of the present study supported the belief that the amount of education planning needs were dependent more upon the number of credit hours enrolled than upon the age of the student. The present

research reported students 35 year of age and greater, enrolled in 6-11 credit hours, had the greater educational planning needs, while students 35 year of age and greater, and students 22 years of age and younger, enrolled in 1-5 credit hours, had the least need.

Valerius-Bonnar (1988) reported no significant differences for educational planning needs. However, the present researcher found four main effects and two interactions related to educational planning.

Association with Others. Mangano and Corrado (1979) reported younger students indicated a higher need for extracurricular activities and for personal-social development. Contrary to this, Devlin and Gallagher (1979) reported older students expressed a greater need for getting together after class. The results of the present study could support neither position using only age as the independent variable. However, when number of credit hours enrolled was introduced, the results supported Delvin and Gallagher's findings. The results of the present study indicated students 22 years of age and less, enrolled in 6-11 credit hours reported the least need for association with others, and students 35 years of age and greater, enrolled in 6-11 credit hours, reported the greatest need for association with others.

Valerius-Bonnar (1988) found nontraditional students with incomes of less than $6,000 and incomes between $12,000 and $17,999 reported higher needs for association with others than nontraditional students earning $50,000 or more. The results of the present study appeared to support Valerius-Bonnar's (1988)

findings. The present study found students with incomes from $21,000-$29,999 reported greater association with others needs than students with incomes over $50,000.

Generalizations

The results of the present study appeared to support the following generalizations:

1. Married students have greater educational planning needs than single students.
2. Students with income levels from $21,000-$29,999 have greater association with others needs than students with incomes over $50,000.
3. There was an interaction between gender and marital status for the dependent variable career development.
4. There was an interaction between age and credit hours enrolled for the dependent variable career development.
5. There was an interaction between age and credit hours enrolled for the dependent variable educational planning.
6. There was an interaction between age and credit hours enrolled for the dependent variable association with other.
7. There was an interaction between age and credit hours enrolled for the dependent variable life skills development.
8. There was an interaction between income level and number of children at home for the dependent variable career development.
9. There was an interaction among race, income level and number of children at home for the dependent variable career development.

10. There was an interaction between income level and number of children at home for the dependent variable educational planning.

Recommendations

The results of the present study appeared to support the following recommendations:

1. The study should be replicated with a larger, random sample.
2. The study should be replicated with students from more than one community college.
3. The study should be replicated with larger numbers of subjects representing races other than Caucasian.
4. The study should be replicated with different independent variables.

References

Barrow, J., Cox, P., Sepich, R., & Spivak, R. (1989). Student needs assessment surveys: Do they predict student use of services? Journal of College Student Development, 30, 77-82.

Claus, J.F. (1986, April). Adult students in community college: Learning to manage the learning process. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 269 113).

College Board, (Eds.). (1985). Adult recruitment [Special issue]. The Admissions Strategist, 3.

Devlin, L. E. & Gallagher, P. (1982). Age-related needs of community college students. The Canadian Journal of Higher Education, 12(2), 33-42.

Duffy, K. L. & Fendt, P. F. (1984). Trends in adult learning: Implications for community college educators. Community College Review, 12 (1), 41-47.

Dwinell, P. L. (1980). A needs assessment of nontraditional women students at the University of Georgia. Washington, D.C.: National Institute of Education. (ERIC Document Reproduction Service No. ED 195 219).

Fenske, R. H. & Hughes, M. S. (1989). Current challenges: Maintaining quality amid increasing student diversity. In U. Delworth & F. R. Hanson (Eds), Student services: A handbook for the professional (pp. 555-584). San Francisco: Jossey-Bass.

Graham, S. W. (1987). The needs and learning preferences of community college adults: Implications for program planning and marketing. Community College Review, 15 (3), 41-47.

Graham, S. W. (1988). Adult learners in a community college environment: Examining changes and trends in learning patterns. Community/Junior College Quarterly, 12 (2), 147-158.

Holliday, G. (1985). Addressing the concerns of returning women students. In N. J. Evens (Ed.), New directions for student services: Facilitating the development of women, 29, (pp. 61-73).

Hughes, R. (1983). The non-traditional student in higher education: A synthesis of the literature. NASPA-Journal, 20 (3), 51-64.

Lenning, O. T. & Hanson, F. R. (1977). Adult students at two-year colleges: A longitudinal study. Community/Junior College Research Quarterly, 1 (3), 271-287.

Mangano, J. A., & Corrado, T. J. (1979). Responding to the needs of re-entry adults in two-year colleges. Albany: New York State Education Department Grants Administration Unit. (ERIC Document Reproduction Service No. ED 180 564)

Mangano, J. A., & Corrado, T. J. (1980, April). Toward a taxonomy of adult two-year college student needs. Paper presented at the meeting of the American Educational Research Association, Boston, MA. (ERIC Document Reproduction Service No. ED 184 642)

McMillian, J. H. & Schumacker, S. (1984). Research in education: A conceptual introduction. Boston: Little, Brown, and Company.

Parks, D. R. (1982, December). Can student services meet the challenge of adult students?. (ERIC Document Reproduction Services No. ED 224 525).

Payton, C. R. (1985). Addressing the special needs of minority women. In N. J. Evans (Ed.), New directions for students services: Facilitating the development of women, 29, (pp. 75-89).

Sewall, T. J. (1984). UWC-Baraboo/Sauk County adult student survey. (Technical report No. 143). Wisconsin University, Green Bay Assessment Center. (ERIC Document Reproduction Service No. ED 257 970).

Valerius-Bonnar, J. B. (1988). An exploratory study of the needs of non-traditional students (Masters thesis, Fort Hays State University).

Valiga, M. J., & McClanahan, R. R. (Eds). (1989). The ACT evaluation/survey service: User's guide. (Available from the American College Testing Program, Institutional Services Area (65), P.O. Box 168, Iowa City, Iowa 52243).

APPENDIX A

Letter to dean asking permission to conduct research

February 9,1990

Dr. Jerry Gee
Associate Dean of Continuing Education
Dodge City Community College
2501 North 14th
Dodge City, KS. 67801-2399

Dear Dr. Gee

As part of a masters degree in counseling with an emphasis in student personnel at Fort Hays State University, I am required to write a thesis. I have selected the topic, "An Evaluation of the Personal and Educational Needs of the Community College Adult Student". The American College Testing Adult Learner Needs Survey was designed to explored the needs of adult students and I have selected it as the instrument to use in this study.

Certainly my interest in the adult learner has developed through my ten years of employment at Dodge City Community College. Because of my interest in DCCC, I am requesting your permission to conduct this research using night students as a convenient sample of DCCC adult students.

I purpose to select 20 different night classes that will provide approximately 400 subjects to survey. I will talk with each instructor to ask for their cooperation and to review the instruction sheet on the administration of the survey. For your review and suggestions, I have enclosed a copy of my purposed letter to the subjects and my purposed instruction sheet to the instructors. The anticipated week of conducting the surveys is either February 26th to March 1st or March 5th to 8th.

The results of this study will contribute to what is known about the needs of DCCC adults. I will explore the association of six independent variables with four dependant variables (four types of student needs). The independent variables are gender, age, income, number of hours currently enrolled in, ethnic background and marital status.

I look forward to hearing from you regarding this request. If you have any questions, I can be contacted at 225-5819.

Sincerely,

Deborah Trahern Lloyd

APPENDIX B

Letter from dean granting permission to conduct research

DODGE CITY COMMUNITY COLLEGE

February 19, 1990

Ms. Deborah Trahern Lloyd
Box 1432
Dodge City, KS 67801

Dear Debbie,

I received your request to survey approximately 400 students enrolled in Dodge City Community College's night courses for research on your Masters Degree. I consider this an excellent opportunity for you and Dodge City Community College to learn more about our adult students' needs. I would appreciate having a list of the classes to be surveyed, as well as a copy of the final thesis.

Good luck in your research. Please let me know if I can be of additional assistance.

Sincerely,

Jerry R. Gee, Ph.D.
Associate Dean of Instruction

jg/kc

2501 N. 14th Avenue • Dodge City, KS 67801-2399 • (316) 225-1321 • Toll-free in KS: 1-800-742-9519

APPENDIX C

Instructions sheet for instrument administrator

INSTRUCTION SHEET FOR SURVEY ADMINISTRATORS

1. Read letter written by researcher to students. Those we do not wish to participate may leave now.

2. Instruments will not be computer scored. Therefore, students are not required to use a pencil.

3. Pass out surveys.

4. Point out the question added by the researcher on the back page. Please ask them to mark that question.

5. Tell them they can leave as soon as they are finished.

6. Tell them to disregard the directions at the top of the survey and begin.

7. As the students return the completed surveys to you, please put them in the envelope provided. Seal the envelope once all surveys (completed and not used) are inside.

8. Take envelope to the DCCC records office in Student Union sometime prior to Spring Break. **Please do not forget to take the surveys to the Records Office.** The researcher plans to code and turn into F.H.S.U. computer center over Spring Break.

APPENDIX D

Written introduction and directions to the students

Directions to Students

Dear Students,

The night enrollment at Dodge City Community College has been increasing over the past several years. In fact, 29 percent of the total credit hours taken at DCCC are taken by part-time students. This trend of more and more part-time students is a national one; 60% of all students in higher education are attending part-time.and at DCCC 67% of all students (headcount) are attending part-time. More part-time students has also meant more older students. The following quote sums up why I think you and my research are so very important to DCCC. Dennis Parks, Coordinator of University Without Walls Programs, in 1982 wrote:

> If student services in a community college is to respond to the needs of an older, more diversified student population, it must have a sound comprehension of this population's needs. By virtue of their age, adult students have different perceptions, ideas, and expectations about their education. Student services must be able to see adult students not as traditional college age students, but as diverse individuals facing very different development tasks.

This study is the final requirement necessary for me to complete a masters degree in counseling with a student personnel emphasis at Fort Hays State University. I selected to research the personal and educational needs of the adult student at DCCC because of my experiences as Director of Admissions here for the past nine years. The results of this study will contribute to the information we have to make decisions that effect you as a DCCC student.

With the permission of Dr. Jerry Gee, Associate Dean of Continuing Education and the instructors, this survey is being administered to approximately 400 night students at DCCC. The survey will take approximately 25 minutes to complete. Your responses will remain confidential and results will only be reported as a group or sub-groups but not individually. Your participation is, of course, voluntary.

So far in my discussion I have been emphasizing the needs of older adults. In addition to learning about older adults, I also need the participation of traditional 18 to 22 year old students and the participation of full-time students. From this study, I hope to determine if there is any association among gender, age, income level, number of hours enrolled, marital status, ethnic background, and the inventoried needs. It is vital to this study that you classify yourself in all of the above mentioned areas. It is also vital that you mark each item and mark only one spot for each item.

Thank you in advance for your participation in this research study. If you are interested in the group results, please stop the admissions office in June 1990 to view a copy of the thesis. Thanks Again!

Sincerely,

Deborah Trahern Lloyd